

ABSTRACT OF THE DISCLOSURE

A method for producing a non-carbon inert anode for metal oxide electrolytic reduction by coating a metal, cermet, or ceramic substrate with a molten metal oxide compound of a ferrite and at least one divalent metal selected from iron, nickel, manganese, magnesium, and cobalt. The coated anode is protected from attack by the liberated oxygen and the solute in the electrolysis of metals, such as aluminum, magnesium, lithium, or calcium. Apparatus for carrying out the method, and the resulting product are also disclosed.